

OM SERIES MEDIUM CAPACITY (OVAL GEAR METERS)

PRODUCT CONFIGURATION

The FLOMEC® OM Medium Capacity Oval Gear Meters are great for medium flow ranges and have the ability to handle a wide range of fluid viscosities.

FEATURES / BENEFITS

- High accuracy and repeatability, direct volumetric reading. Measures high and low viscosity liquids.
- Quadrature pulse output option and bi-directional flow.
- Blind 4-20mA output option.
- Optional Exd I/II approval (ATEX, IECEx)
- No requirement for flow conditioning (straight pipe runs).
- Only two moving parts.

PRODUCT IDENTIFIER **1**

OM = Oval Gear Meter

METER SIZE **2**

015 = 1/2 inch (13mm), 0.26-10.6 GPM (1-40 LPM)

025 = 1 inch (25mm), 2.6-40 GPM (10-150 LPM)

040 = 1-1/2 inch (38mm), 4-66 GPM (15-250 LPM)

050 = 2 inch (51mm), 8-120 GPM (30-450 LPM)

BODY MATERIAL **3**

A = Aluminum

P = PPS (73 PSI [5 bar]) (PPS rotors only) (OM025 only)

M = Intermediate pressure aluminum meter (2000 PSI [138 bar] max.) (OM025 only)

S = 316L Stainless Steel

N = Intermediate Pressure 316L SS (OM025N = 1450 PSI / 100 bar)
(OM040N-OM050N = 725 PSI / 50 bar)

H = High Pressure 316 SS (OM040H = 5580 PSI / 400 bar max.)
(OM050H = 4200 PSI / 300 bar max.)

ROTOR MATERIAL **4**

0 = PPS - PTFE filled (Polyphenylene Sulfide) (Available for OM008 only)

1 = Keishi cut PPS rotors for high viscosity liquids

5 = Stainless Steel (Standard on OM004 & OM006, optional for OM008)

7 = Keishi cut Stainless Steel rotors for high viscosity liquids (Available for OM008 only)

BEARING TYPE **5**

0 = No Bearing - PPS rotor option only (Available for OM008 only)

1 = Carbon Ceramic (Standard with Stainless Steel rotors)

O-RING MATERIAL **6**

1 = FKM (Viton™) (standard for Alum.) -5° F minimum (-15° C)

2 = EPR (Ethylene Propylene Rubber) - for ketones only

3 = PTFE encapsulated FKM (Viton™) - (standard for SS)

4 = Buna-N (Nitrile), -40° F minimum (-40° C)

MAXIMUM TEMPERATURE LIMIT **7**

-2 = 250° F (120° C) max. (reduced to 80° C when fitted with integral instruments)

-3 = 300° F (150° C) max.

(Hall Effect output only, not available with HP meters)

-5 = 250° F (120° C) max. (includes integral cooling fin)

-8 = 176° F (80° C) max. (ONLY to OM008 with PPS rotors)

PROCESS CONNECTIONS **8**

1 = BSPP (G) female threaded

2 = NPT female threaded

3 = Sanitary Fittings (are 1/2" (13mm) larger than meter size)

4 = ANSI-150 RF Flanged

5 = ANSI-300 RF Flanged

6 = PN16 DIN Flanged

CABLE ENTRIES **9**

1 = M20 x 1.5 mm

2 = 1/2" NPT

INTEGRAL OPTIONS **10**

___ = Combination Reed Switch and Hall Effect Sensor

G5 = [GG 500] Rate / Total Display with pulse out and optional Ex. Power ... [Local Display w/ Pulse (60°C)]

G6 = [GX 500] Rate / Total Display w/ 4-20mA out [Local Display w/ 4-20mA (60°C)]

G7 = [GA 500] Loop powered 4-20mA analog output [Local 4-20mA (60°C)]

RS = Reed Switch only - to suit Intrinsically safe installations

E1 = Explosion proof Exd IIB T4/T6 (aluminum & stainless meters) [IECEx & ATEX mines approved]

E2 = Explosion proof Exd I/II T4/T6 (stainless meters only) [IECEx & ATEX mines approved]

QP = Quadrature pulse (2 NPN phased outputs) [not available with high press models]

Q1 = Explosion proof Exd (with quadrature pulse, but not available with high pressure meter) [IECEx & ATEX approved]

PF = Pulsating flow option (Hall effect output only) [for injected combustion engines]

P1 = Explosion proof - Exd with PF pulsating flow option [IECEx & ATEX approved]

B2 = BT11 totalizer with pulse output [with scalable pulse output]

B3 = Intrinsically safe BT11 with pulse output [IECEx & ATEX approved]

R0 = RT12 rate totalizer with all outputs (Alloy housing) [scaled pulse, alarms, 4-20mA]

R2 = RT12 rate totalizer with all outputs (GRN housing) [scaled pulse, alarms, 4-20mA]

R3 = Intrinsically safe RT12 with all outputs (GRN housing) [IECEx & ATEX approved]

R4 = RT40 rate totalizer with backlit large digit LCD [scalable pulse output, backlight]

E0 = EB10 batch controller [2 stage DC batcher & totalizer]

1 2 3 4 5 6 7 8 9 10

---->>> **OM + 025 + A + 5 + 1 + 2 + -5 + 2 + 1 + G5 = SAMPLE**

SPECIFICATIONS

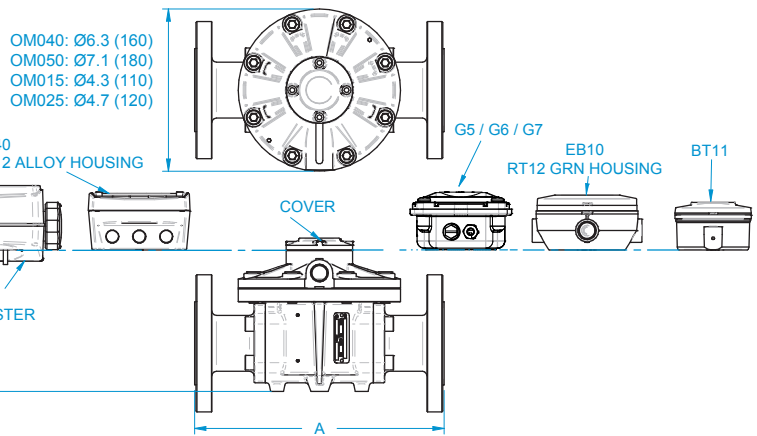
Meter Size:	OM015 - 1/2 inch (13mm)		
	OM025 - 1 inch (25mm)		
	OM040 - 1-1/2 inch (38mm)		
	OM050 - 2 inch (51mm)		
*Flow Range:	OM015	0.26-10.6 GPM	1-40 LPM
	OM025	2.6-40 GPM	10-150 LPM
	OM040	4-66 GPM	15-250 LPM
	OM050	8-120 GPM	30-450 LPM
**Accuracy @3cp:	± 0.5% of reading (accuracy is ± 2.0% of reading with optional RT12 with non-linearity correction)		
Repeatability:	Typically ± 3.0% of reading		
Temperature Range:	-4° F to +250° F (-20° C to +120° C) refer to factory for lower temperature		
Pressure Rating Threaded Meter - PSI (bar):	OM015 OM025 OM040 OM050		
Aluminum	990 (68) 990 (68) 435 (30) 285 (20)		
Intermediate Pressure Alum.	2000 (138)		
316 Stainless Steel	990 (68) 990 (68) 435 (30) 550 (38)		
Intermediate Pressure SS	1450 (100) 1450 (100) 725 (50) 725 (50)		
***High Pressure models	5800 (400) 5800 (400) 5800 (400) 4350 (300)		

Pressure Rating Mechanical Meter - PSI (bar):	
Aluminum	580 (40), 580 (40), 435 (30), 285 (20)
316 Stainless Steel	580 (40), 580 (40), 435 (30), 285 (20)
Recommended Filtration:	100 mesh (150 microns)
Electrical:	OM015 OM025 OM040 OM050
Output Pulse Resolution:	Pulses / gallon (Pulses / litre) - Nominal
Reed switch	318 (84) 102 (27) 53 (14) 25 (6.5)
Hall effect	636 (168) 405 (107) 212 (56) 99 (26)
QP-Quadrature Hall option	636 (168) 204 (54) 106 (28) 49 (13)
Reed switch output	30Vdc x 200mA max. [maximum thermal shock 18° F (10° C) / minute]
Hall Effect output (NPN)	3 wire open collector, 5-24Vdc max., 20mA max.
Optional outputs	4-20mA, scaled pulse, quadrature pulse, flow alarms or two stage batch control

*Maximum flow is to be reduced as viscosity increases, see flow de-rating guide. Max recommended pressure drop is 100Kpa (14.5 psi).

**Accuracy ±1% of reading with M-Series mechanical registers and accuracy ±0.5% of reading with V-Series mechanical register.

***QP and PF Options are not available with High Pressure Meters.



DIMENSIONS

All dimensions are inches ± .079 (millimeters ±2mm)

MODULAR FITTING	A						CONFIGURATION	B							
	OM015	OM025A	OM025S	OM040	OM050	OM050E		OM015A	OM015S	OM025A/P	OM025S	OM040A	OM040S	OM050	OM050E
A.N.S.I. 150 DIN16 JIS 10K	7.4 (189)	7.8 (198)	9.3 (237)	9.9 (252)	10.9 (277)	10.9 (277)	EB10/RT12 GRN Housing	6.0 (154)	5.8 (148)	6.6 (168)	6.5 (165)	7.9 (203)	7.6 (194)	8.6 (218)	10.5 (268)
							BT11 Register	5.7 (145)	5.5 (139)	6.3 (160)	6.2 (157)	7.8 (198)	7.3 (186)	8.3 (210)	10.2 (260)
							RT40/RT12 Alloy Housing, G5 / G6 / G7	6.2 (157)	5.9 (151)	6.7 (171)	6.6 (168)	8.1 (206)	7.8 (197)	8.7 (221)	10.7 (271)
B.S.P N.P.T.	4.3 (110)	5.4 (137)	6.9 (176)	7.4 (188)	8.3 (212)	8.3 (212)	Cover	4.2 (106)	3.9 (100)	4.7 (123)	4.6 (117)	6.1 (155)	5.7 (146)	6.7 (170)	8.6 (220)
							Mech. Register	7.0 (178)	6.9 (176)	7.4 (188)	8.4 (214)	8.9 (227)	8.7 (222)	9.3 (237)	11.3 (286)

APPLICATIONS

- Oils
- Fuel
- Diesel
- Truck Metering
- Bunker C Fuel Oil
- Chemical Additive Injection
- Batching
- Molasses
- Clean Fluids
- Oil-Based Paints
- Industrial Fluids
- Chemical Feed Lines

Service & Warranty: For technical assistance, warranty replacement or repair contact your **FLOMEC®** or **GPI®** distributor: In North or South America: **888-996-3837 / GPI.net**
Outside North or South America: **+61 2 9540 4433 / flomec.com.au**

APPROVALS



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